Message

From: Johnsie Lang [jrlang@ncsu.edu]
Sent: 11/28/2018 12:00:50 PM
To: Chernoff, Neil [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e2c8b0a1aa0347f7ab9245a7a5f28de1-Chernoff, Neil]; Hill, Donna [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=314e939d15314e119bf60e95644293db-Hill, Donna]; Neil Chernoff Ex. 6 Personal Privacy (PP)
Subject: Re: thoughts on yesterday's meeting

I think it was great, but too long. I tried to shorten but keep all the main points. See new version below:

> Kay,
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> I didn't do very well at the meeting yesterday – it's not my thing. I didn't get many vital points across and, in the end, felt that I had wasted your time as well as others who were present.
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> This entire email exchange began when Johnsie Lang came to us with the news that a novel polyfluorinated compound had been found in >95% of human blood samples from the Cape Fear River watershed (which includes Wilmington, where Johnsie was born and raised). She also explained there are no published toxicology studies on this compound. Since Ron was the point person for PFAS, we contacted him and informed him that we intended to study this compound as we had a source for it. He told us not to begin – to wait until the NCCT had finished their major project on the PFAS. We replied that we were going to do the study because the people deserved to have the EPA respond to this sort of situation that dealt with some specific compounds. We then went through all of the correct bureaucratic procedures to include this study as part of our algal toxin effort since we had been concerned for some time that exposures to multiple groups of compounds (microcystin algal toxins and PFAS) that adversely affected the liver might have unexpected effects when humans are exposed to them simultaneously. The Cape Fear River is known to have algal blooms capable of producing microcystins.
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> The thrust of his email that we forwarded yesterday was that the primary fault of NCCT-NHEERL difficulties was on NHEERL because we were not involved in the strategy to replace animal work with computational toxicology. Bob Kavlock wanted his legacy to be "moving toxicology into the 21st Century" by getting away from the use of animals. I said then and I still believe that with our current state of knowledge, it is absurd to believe that we can accomplish this – there are absolutely no substitutes for animal research – flawed as it is, the relevance of whole, live animal exposures to unknown toxins is still the closest approximation to what will happen in an intact live human being. Since Bob convinced Congress that this was "the way to go" – and Congress didn't come up with this idea on its own – the NCCT has grown enormously and the NHEERL has become skeletonized.
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> Ron's attitude is that the NHEERL is not being sufficiently positive towards the NCCT, and in fact, has shown "obstinacy" and "act as an obstacle". That's not what happened and is not what is currently happening! Ralph

Cooper, Susan Laws, xxx, and Tammy Stoker should be consulted before lies of this magnitude are allowed to stand. They were the targets of the NCCT when their whole animal data did not agree with the "truth" discovered by the NCCT cell culture assays. Instead of truly working with the NHEERL, these people were excluded from studies, uninvited from scientific meetings, and had their budgets slashed. The NCCT has from its inception had a culture of "we're right and NHEERL is wrong and old-fashioned". Just what use is the creating a list of "150" PFAS going to be for people with other PFAS in their blood? How will state regulators use in vitro data to make decisions about water consumption?

When Donna and I asked for references to what Ron had written, he shut down the discussion as being "inappropriate" and asked us to make an appointment with his secretary if we wanted to continue the discussion. NHEERL is extremely relevant to the EPA whether that is acknowledged or not. The work that the NHEERL has accomplished since the NCCT came into being has had major impacts on exposure guidelines and health concerns worldwide. We have received considerable funds from Europe and the WHO to do whole animal studies that they needed and these studies have been used by regulators worldwide. I see no evidence that NCCT data has been used to make real-world decisions concerning human exposure guidelines.

Ron suggests that High Throughput Screening (HTS) needs to be "embraced' by the NHEERL. That is utter nonsense. The results of HTS are not relevant and the work done is useless to state regulators. The study we are completing on Nafion Byproduct 2 (found in 99% of Wilmington blood samples) will be done and completed before the NCCT gotten to the point of finally deciding on their list of "550+" PFAS they are going to run through their in vitro batteries.

Ron suggests that HTS is far cheaper than animal research. There are two relevant points that need to be made before this statement is accepted. The first is that a ton of useless data in the final analysis is worthless and any funding for its generation has been a waste. The second is simply to compare the useful outputs of the NCCT and the NHEERL against their respective budgets. I may be wrong, but I suspect that the NCCT's budget expenditures are massively greater than that of the NHEERL in terms of the overall usefulness of the data. When compounds are identified by probable environmental exposures, or verified human exposures, NHEERL scientists should not be asked to wait until the NCCT has completed their time-consuming process of listing, displaying, and laying out a long-term strategy for doing everything. What is needed at these times is a rapid response with animal-based or epidemiological data to characterize potential or ongoing health effects.

We no longer have the funds to bring new people on to learn the science and techniques involved in whole animal research – and the continued build-up of the NCCT while the NHEERL is rapidly shrinking is a long-term research strategy that the public will pay for in the future when we have to reinvent in essential wheel once again.